Swayam Chube

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swayamchube
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This is a list of Mathematics and relevant Computer Science courses I have taken throughout my stay at IIT Bombay. Grades obtained are mentioned alongside the course name.

Mathematics

AA MA403: Real Analysis — *Instructor: Prof. Santanu Dey*
Textbook: Mathematical Analysis by Tom Apostol

AA MA406: General Topology — *Instructor: Prof. Sandip Singh*
Textbook: Topology by Munkres

AA MA408: Measure Theory — *Instructor: Prof. Santanu Dey*
Textbook: Real Analysis by Royden and Fitzpatrick

AP MA410: Multivariable Calculus — *Instructor: Prof. Preeti Raman*
Textbook: Calculus on Manifolds by Spivak

AP MA412: Complex Analysis — *Instructor: Prof. Shripad Garge*
Textbook: Functions of One Complex Variable by Conway

AP MA417: Ordinary Differential Equations — *Instructor: Prof. Saikat Mazumdar*
Textbook: Ordinary Differential Equations and Dynamical Systems by Teschl

AA MA419: Basic Algebra — *Instructor: Prof. Saurav Bhaumik*
Textbook: Abstract Algebra by Dummit and Foote; Algebra by Lang

AA MA503: Functional Analysis — *Instructor: Prof. Chandan Biswas*
Textbook: Functional Analysis by Rudin

AP MA515: Partial Differential Equations — *Instructor: Prof. Harsha Hutridurga*
Textbook: No official textbook. A suggested reference was "Partial Differential Equations: Classical Theory with a Modern Touch" by Nandakumaran and Datti

AA MA521: Theory of Analytic Functions — *Instructor: Prof. Shripad Garge*
Textbook: Functions of One Complex Variable by Conway

AA MA523: Basic Number Theory — *Instructor: Prof. Ronnie Sebastian*
Textbook: A concise introduction to the theory of numbers by Alan Baker

Mathematics (continued)

AA MA526: Commutative Algebra *Instructor: Prof. Jugal Verma*
Textbook: Commutative Ring Theory by Matsumura; Cohen-Macaulay Rings by Bruns and Herzog

AA MA5106: Introduction to Fourier Analysis *Instructor: Prof. Saikat Mazumdar*
Textbook: Fourier Analysis: An Introduction by Shakarchi and Stein

AA MA5110: Non-commutative Algebra *Instructor: Prof. Shripad Garge*
Textbook: Associative Algebras by Pierce

AA MA811: Algebra I *Instructor: Prof. Jugal Verma*
Textbook: Algebra by Serge Lang; Field and Galois Theory by Patrick Morandi

AA MA812: Algebra II *Instructor: Prof. Ronnie Sebastian*
Textbook: Introduction to Commutative Algebra by Atiyah and MacDonald; Algebra by Serge Lang

AA MA813: Measure Theory *Instructor: Prof. Dipendra Prasad*
Textbook: Real and Complex Analysis by Rudin

AA MA815: Differential Topology *Instructor: Prof. Manoj Keshari*
Textbook: Differential Forms in Algebraic Topology by Bott and Tu

AA MA841: Topics in Algebra I *Instructor: Prof. Shripad Garge*
Textbook: Introduction to Lie Algebras and Representation Theory by Humphreys

Computer Science (relevant courses only)

AA CS207: Discrete Structures *Instructor: Prof. Manoj Prabhakaran*

AB CS213: Data Structures and Algorithms *Instructor: Prof. Manoj Prabhakaran*

AA CS228: Logic for Computer Science *Instructors: Prof. Krishna S. and Prof. Ashutosh Gupta*

AA CS218: Design and Analysis of Algorithms *Instructor: Prof. Mrinal Kumar*

AA CS310: Automata Theory *Instructor: Prof. G. Sivakumar*

AA CS779: Extremal Combinatorics *Instructor: Prof. Sunder Vishwanathan*

AB CS786: Randomized Algorithms *Instructor: Prof. Akash Kumar*

BB CS788: Algebraic Automata Theory *Instructor: Prof. Bharat Adsul*